

Title: Apparatus and Method for Reduction of Jet Noise From Turbofan Engines Having
Separate Bypass and Core Flows

Inventor(s): Viswanathan; Atty Docket: 7784-000712
Mark D. Elchuk, Harness Dickey & Pierce, (248) 641-1600

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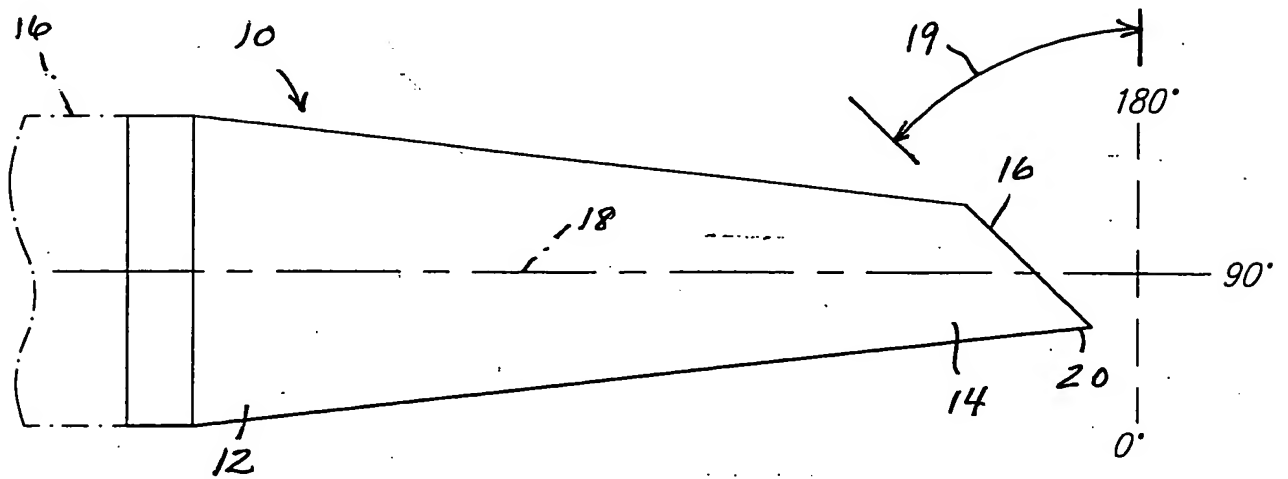


FIG. 1.

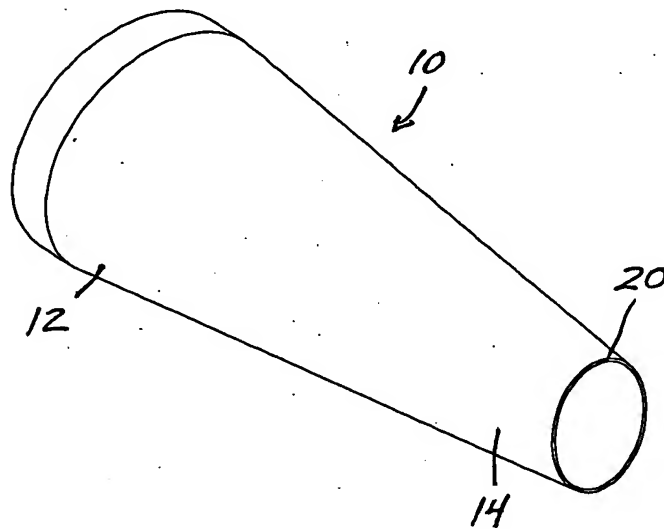


FIG. 1A

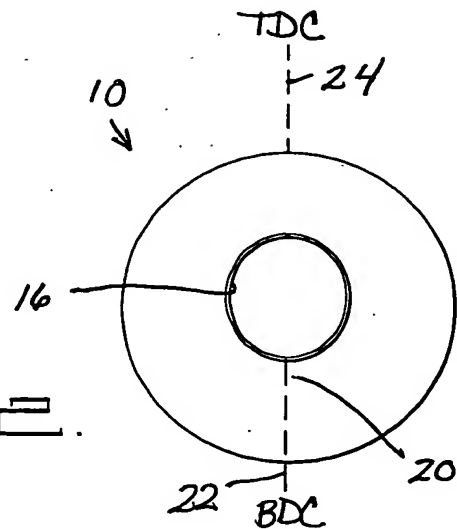


FIG. 2.

Title: Apparatus and Method for Reduction of Jet Noise From Turbofan Engines Having Separate Bypass and Core Flows

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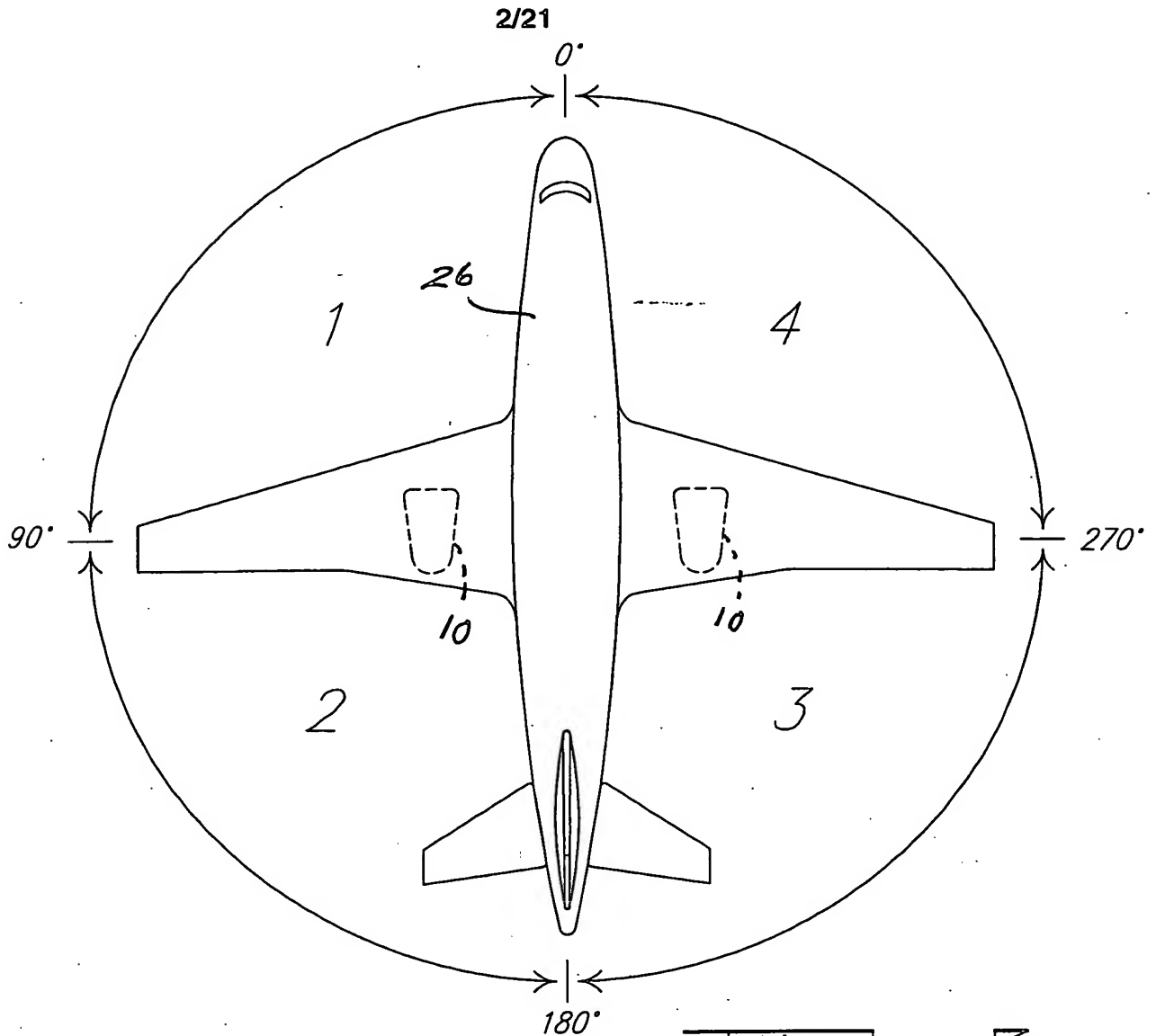


FIG. 3.

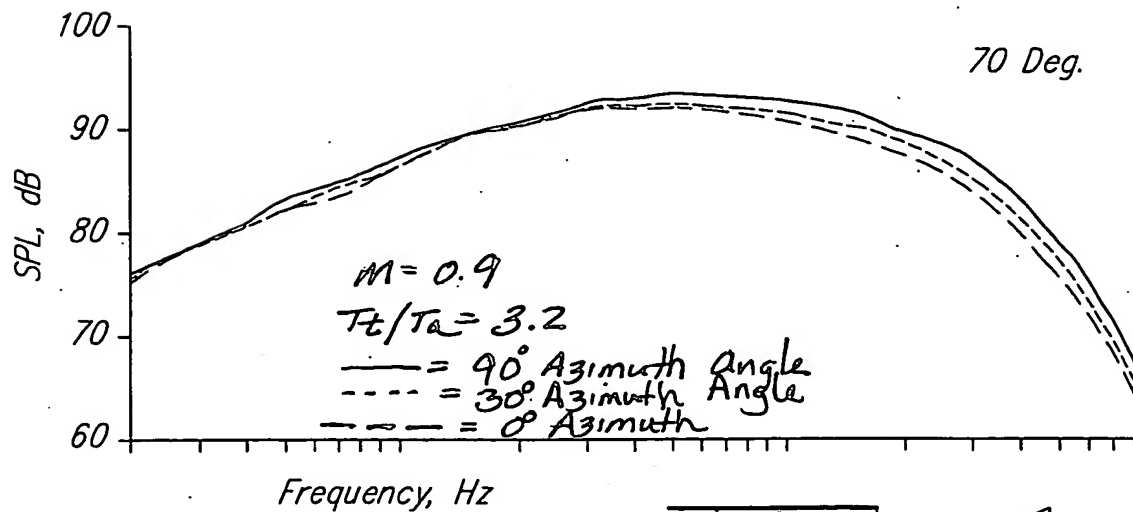
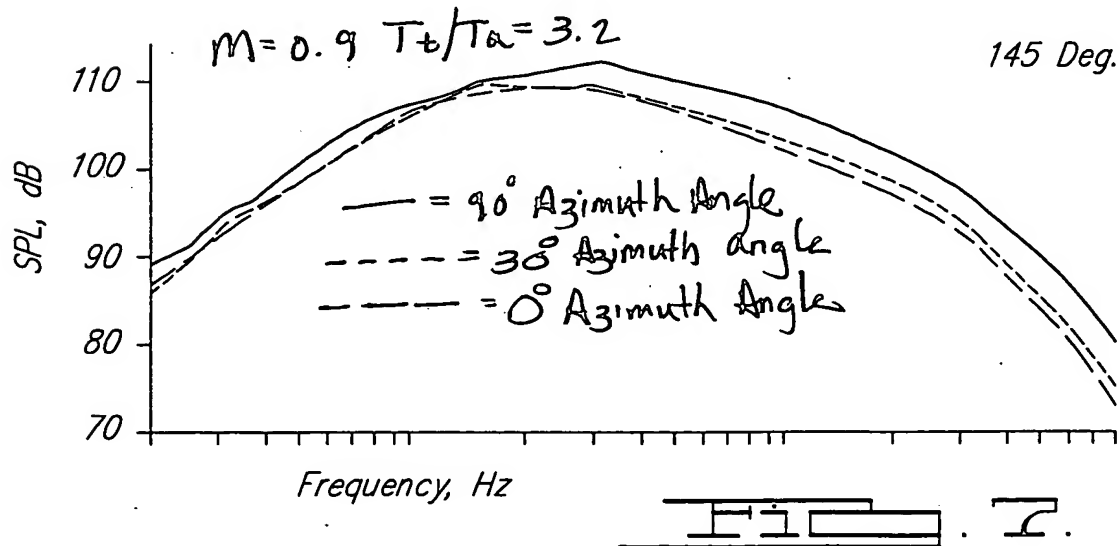
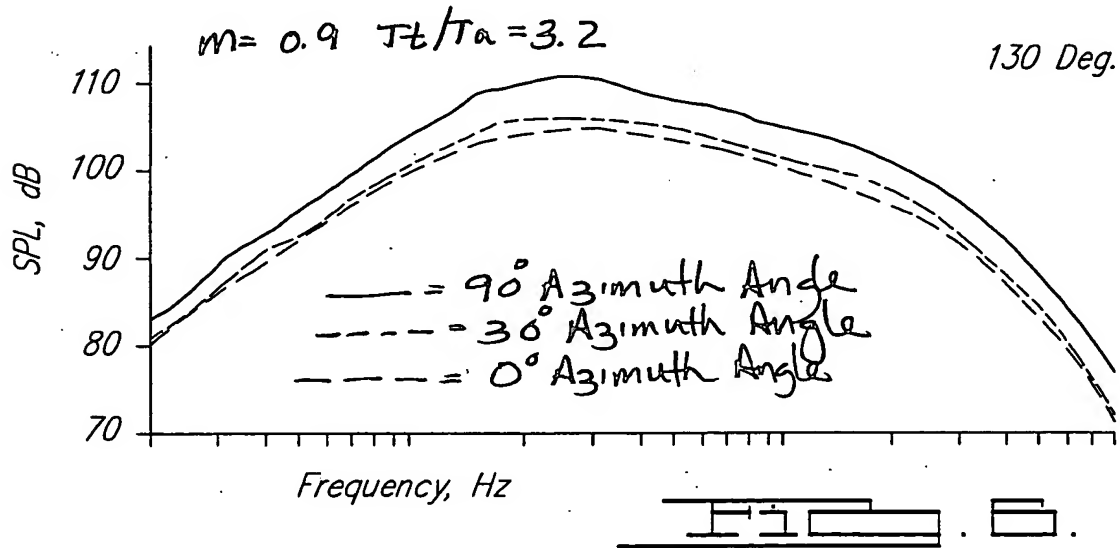
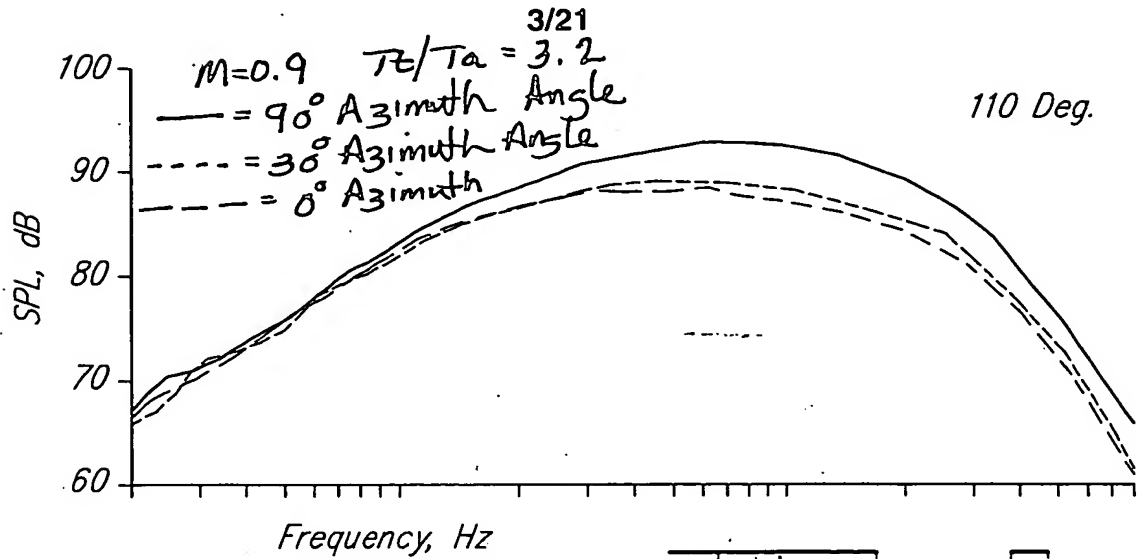


FIG. 4.

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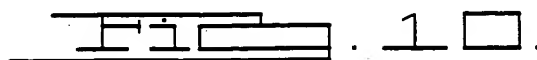
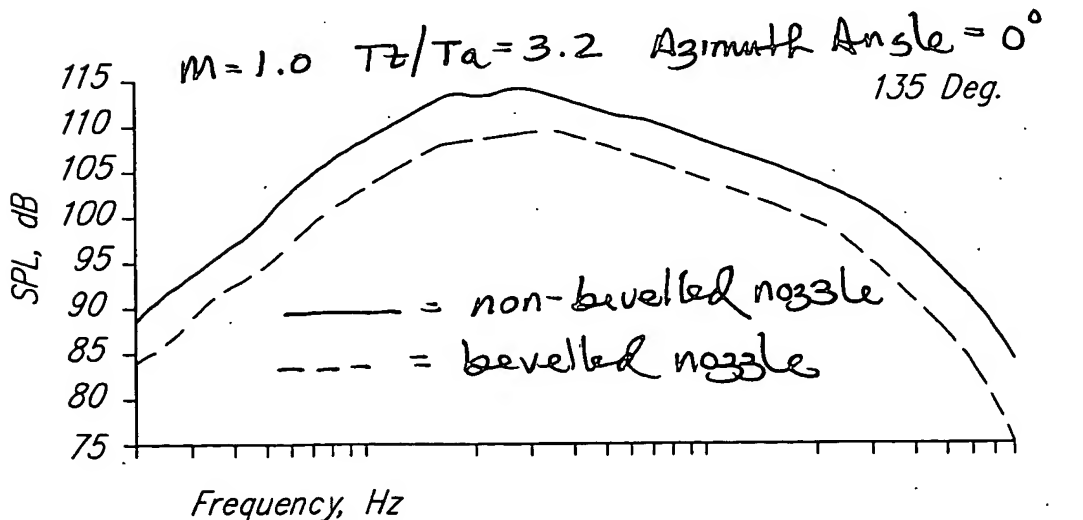
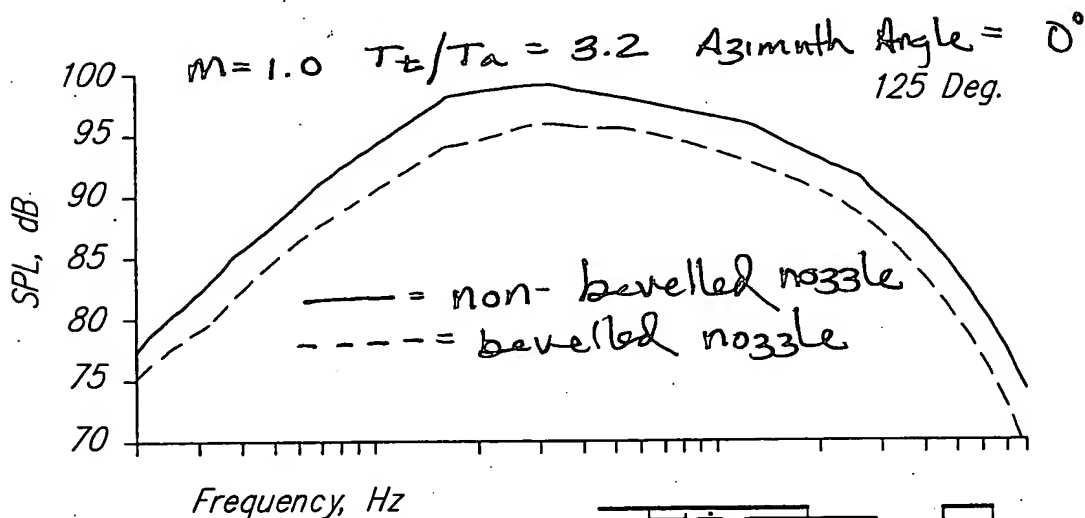
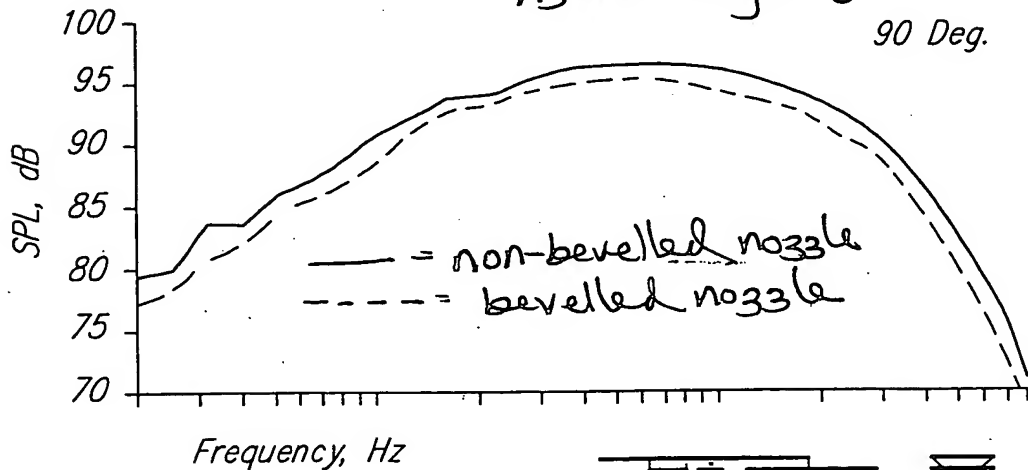
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$M=1.0$ $T_t/T_a=3.2$
Azimuth Angle = 0°



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$M=1.0$ $T_e/T_a = 5/23.2$ Azimuth Angle = 0°

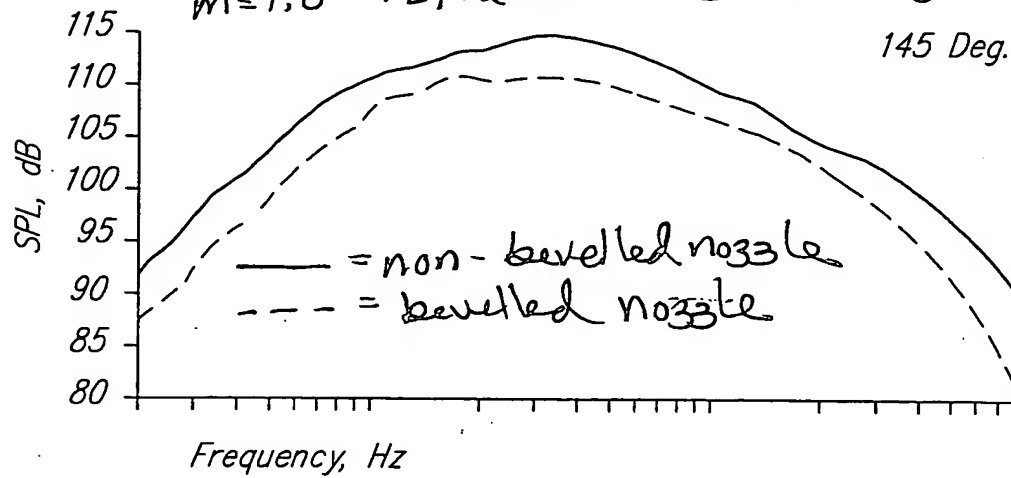


FIG. 11.

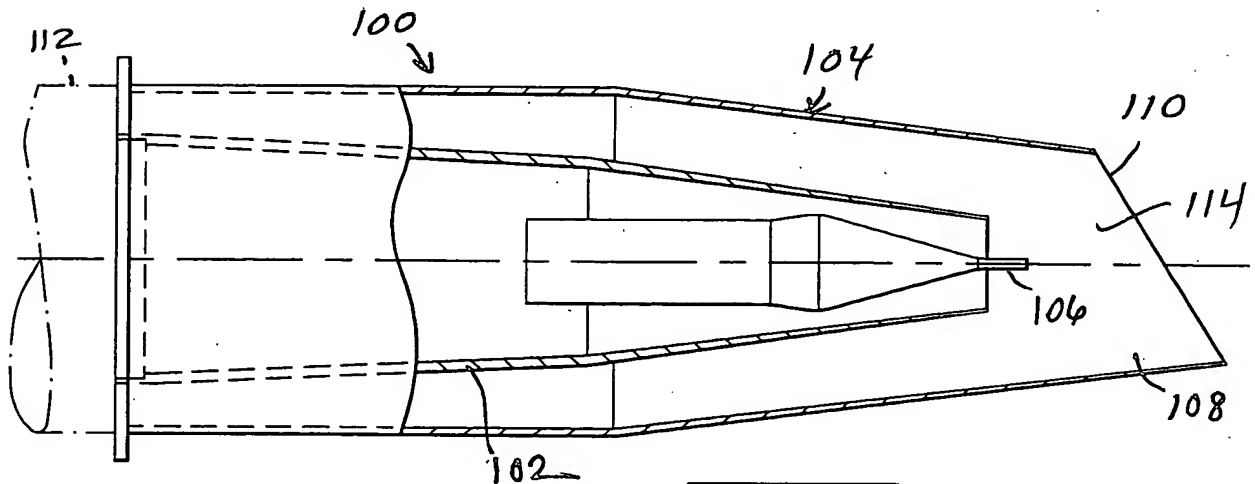


FIG. 12.

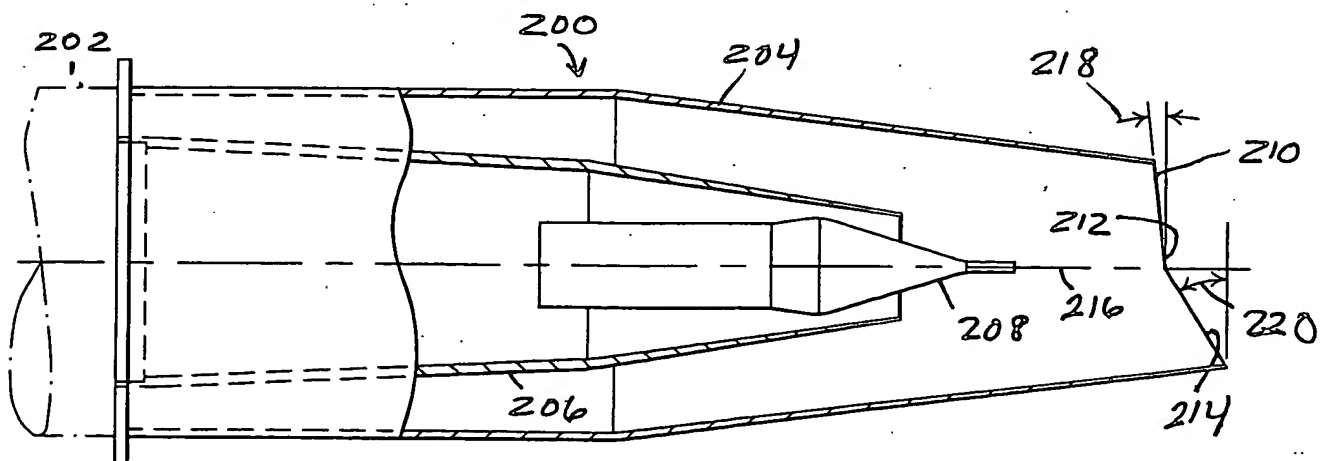


FIG. 13.

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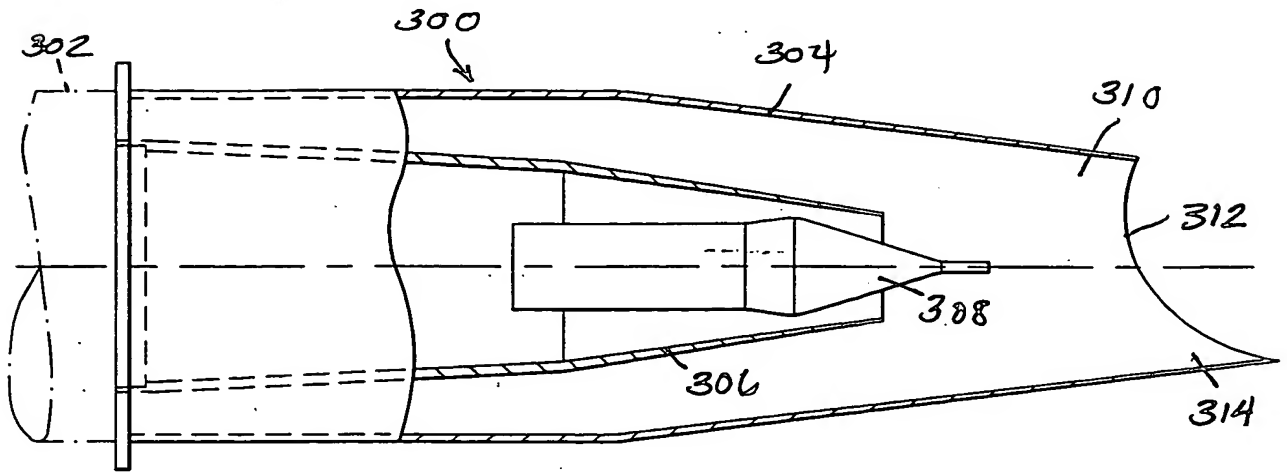


FIG. 14.

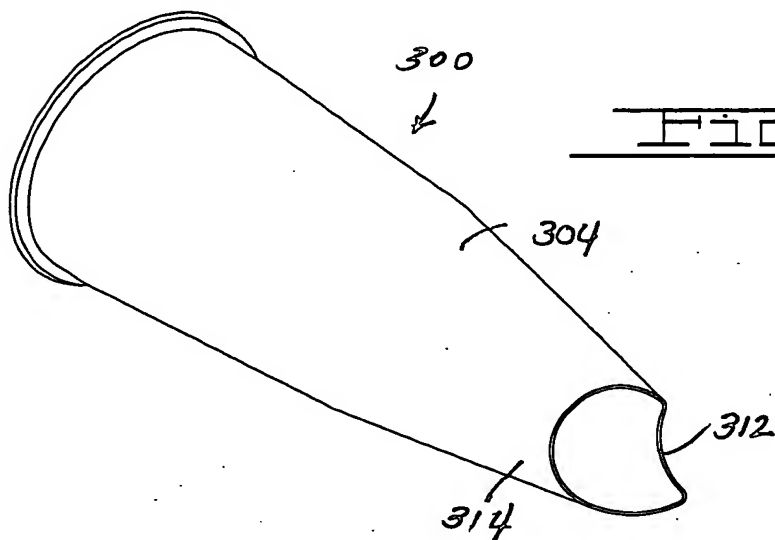


FIG. 14A

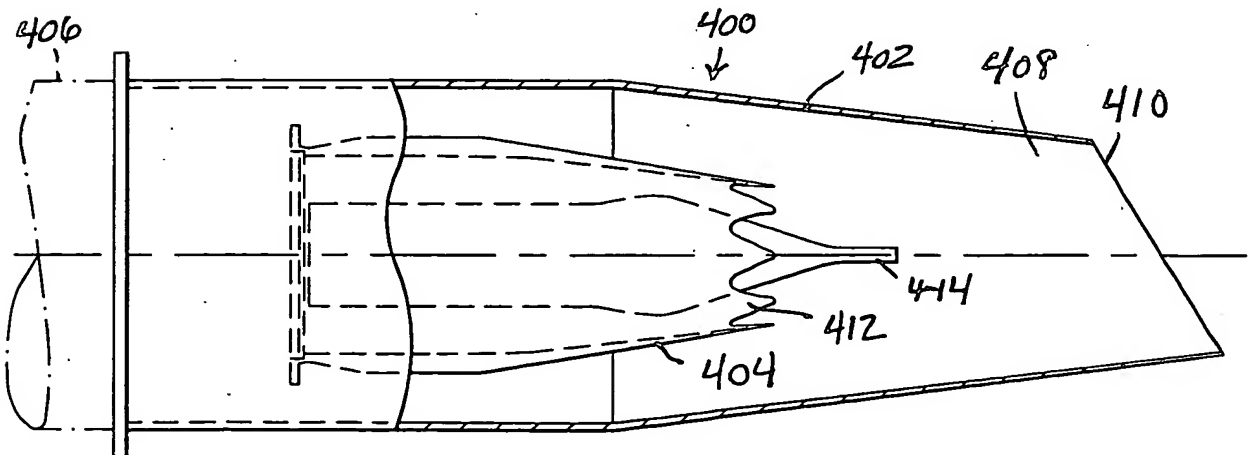
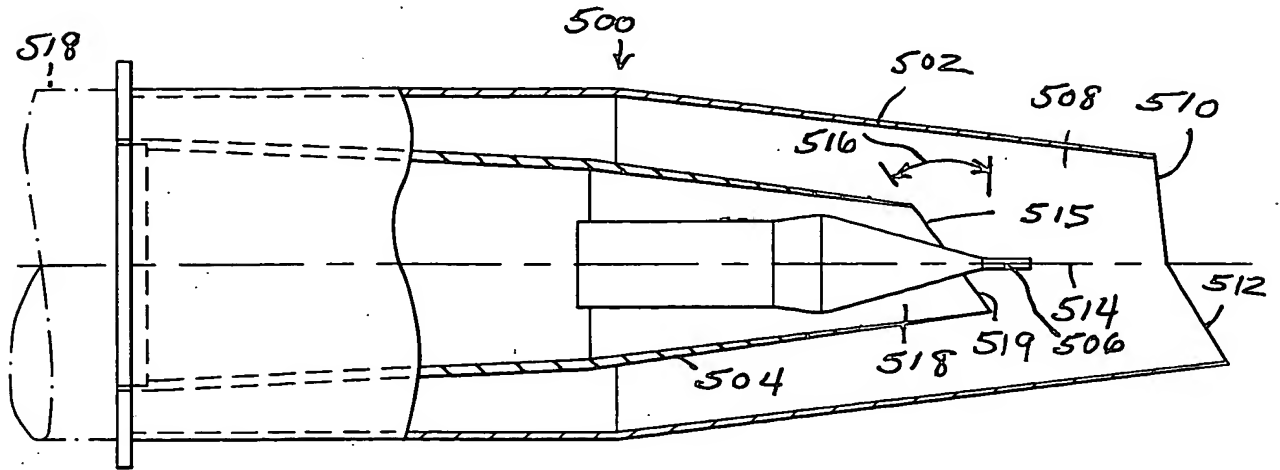
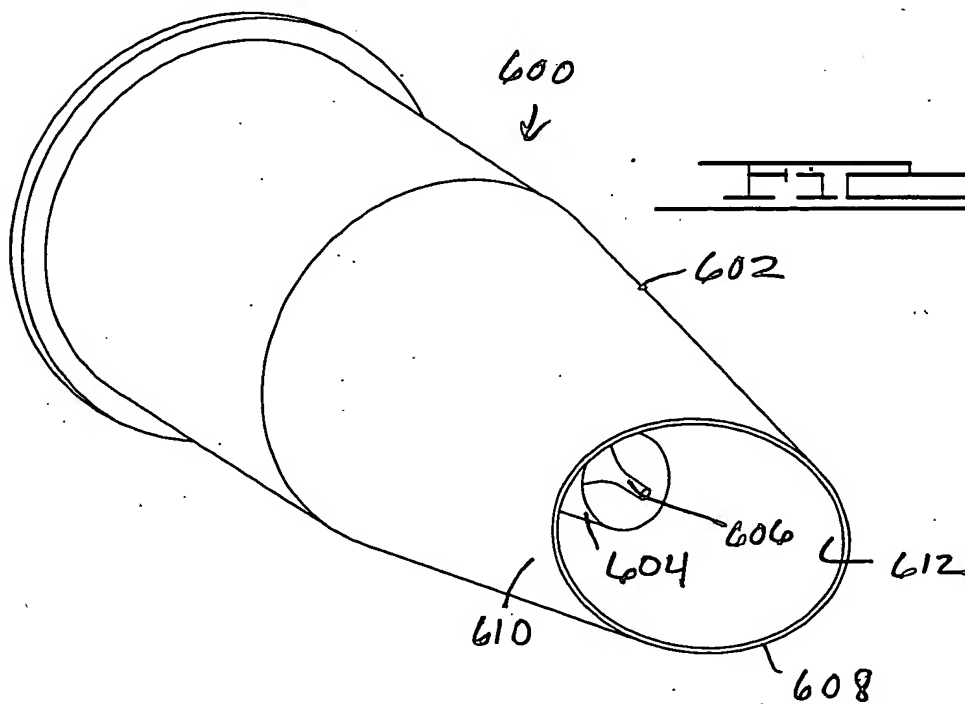


FIG. 15.

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11. 1.



File. 17.

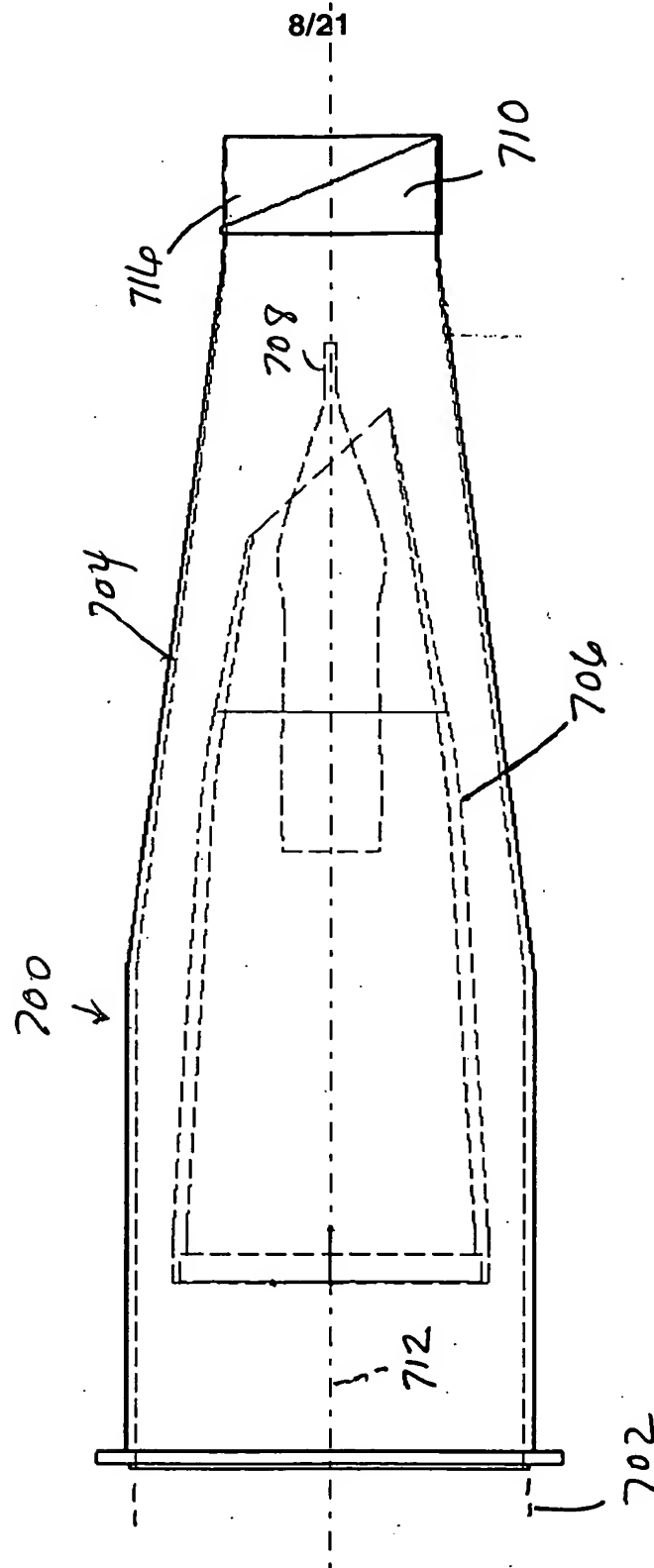


Figure 18.

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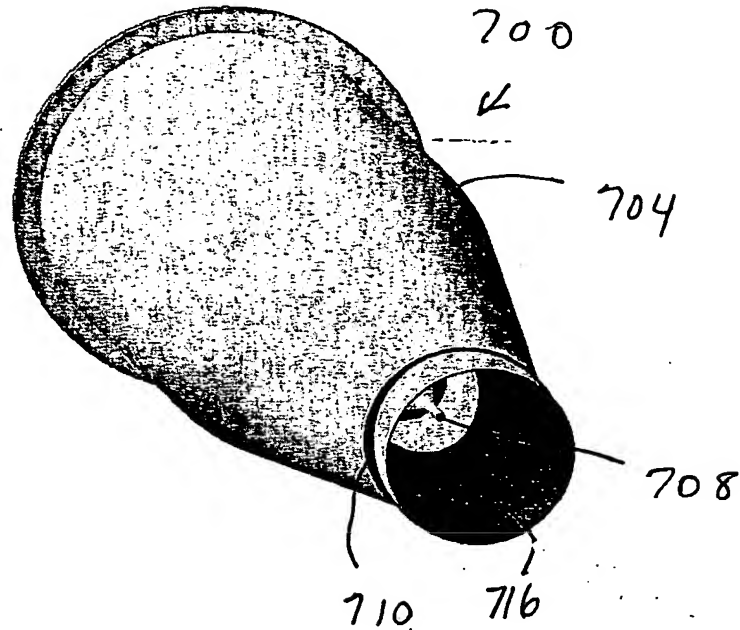


FIG. 18A

Figure 18a.

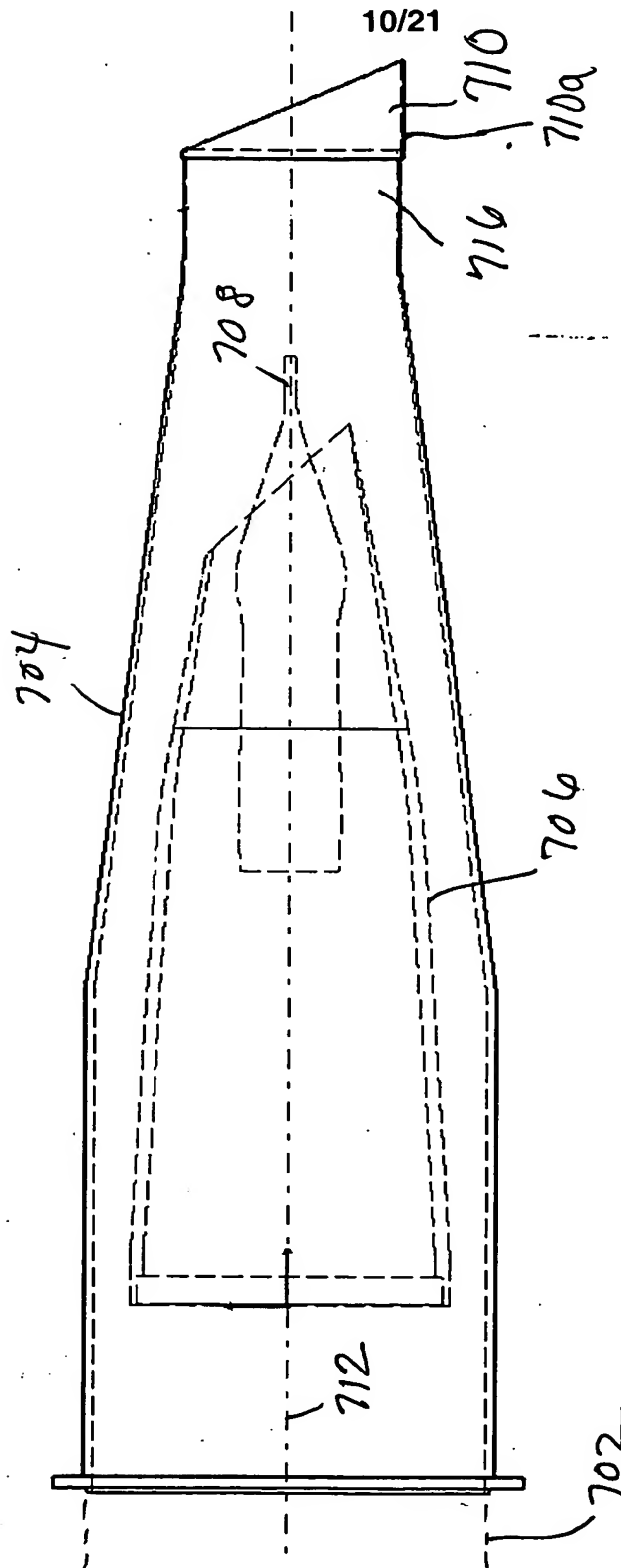


Figure 19.

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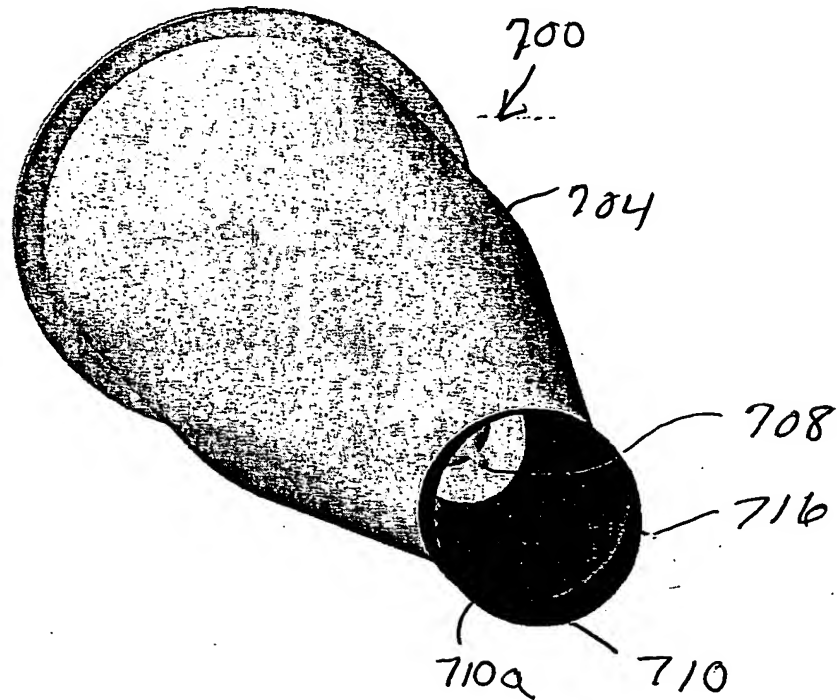


FIGURE 19A

Figure 19a.

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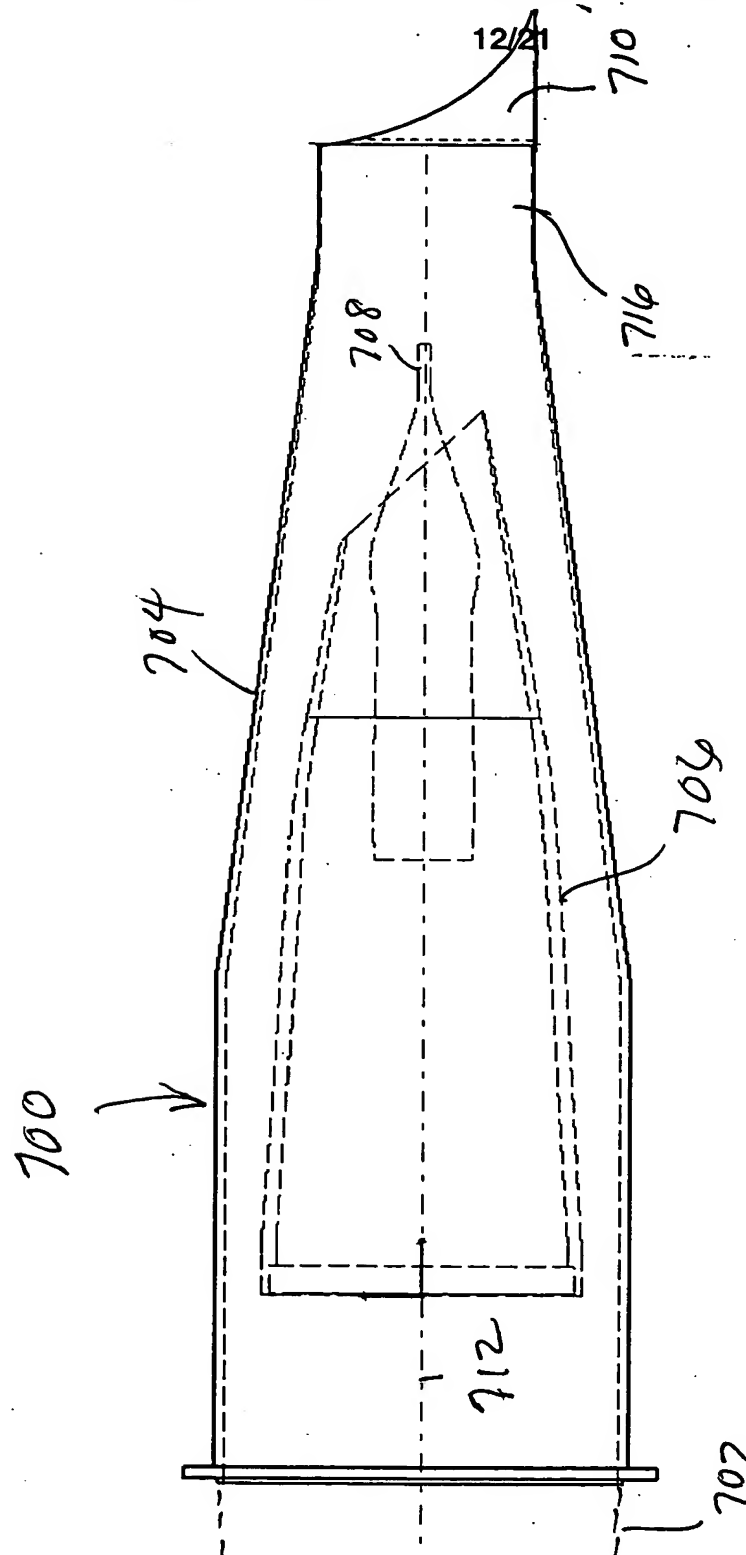


Figure 19b.

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Separate Bypass and Core Flows

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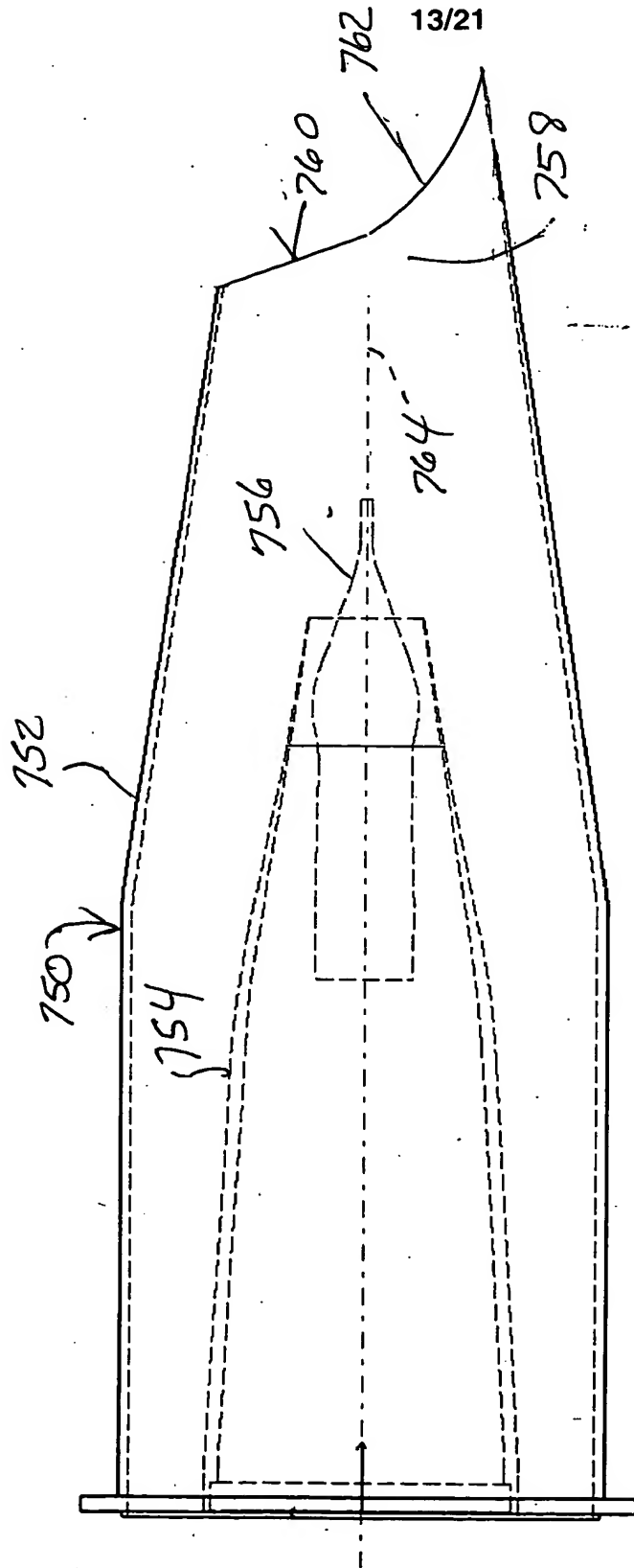


FIG. 19c

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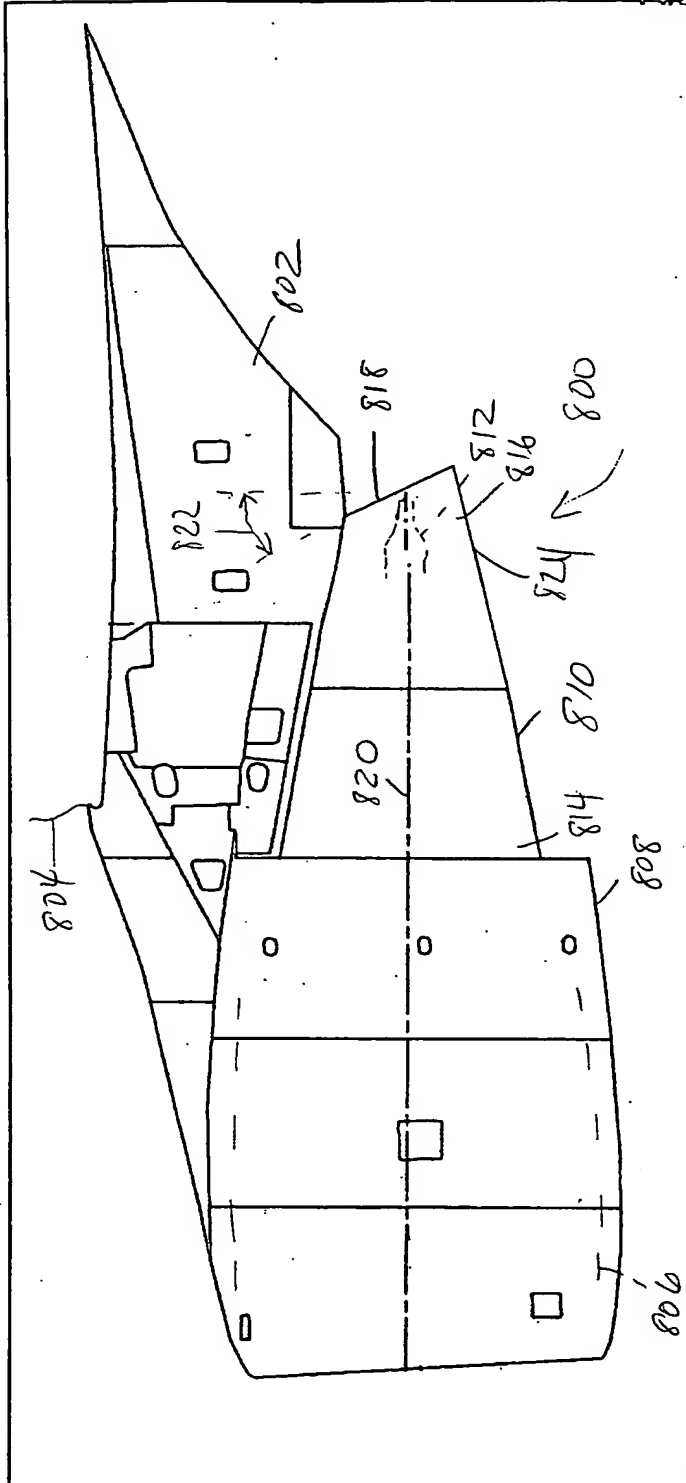


Figure 20

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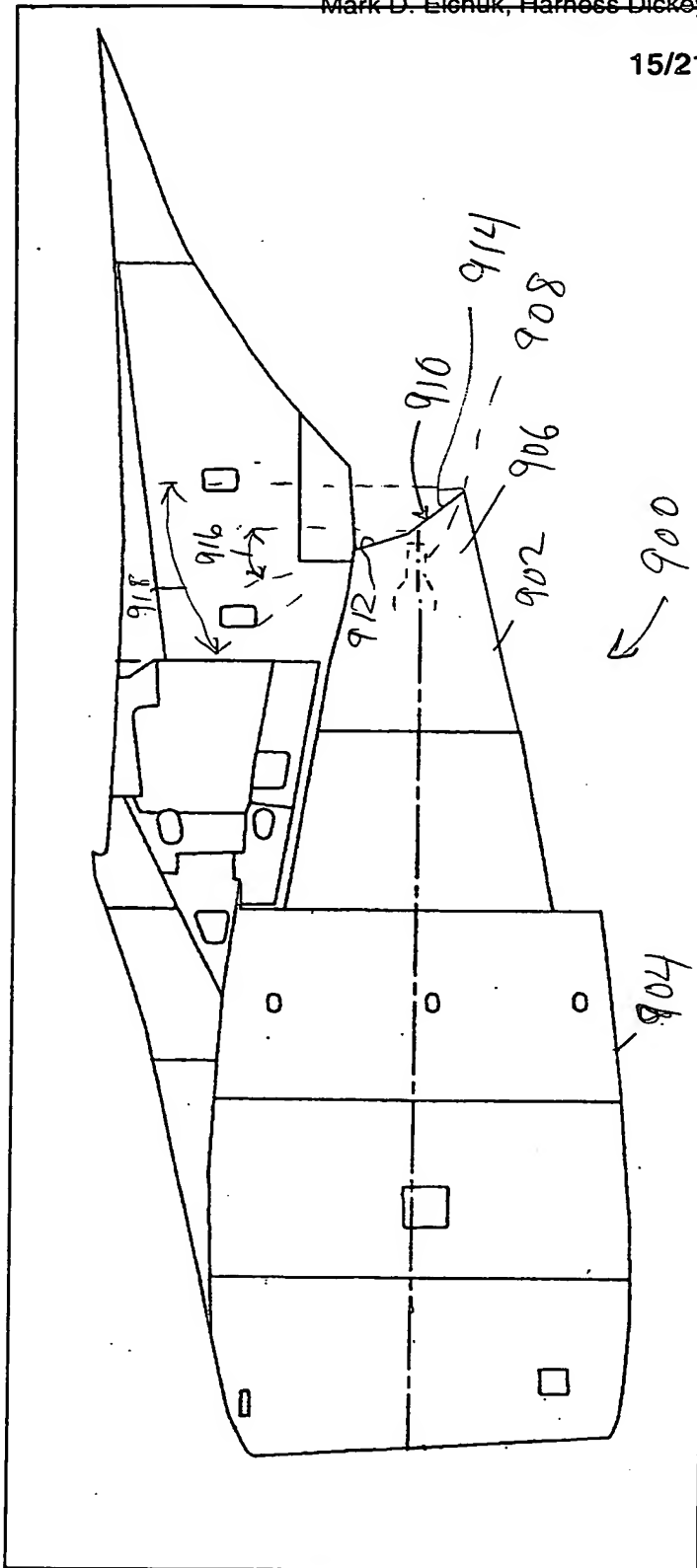


FIG 21

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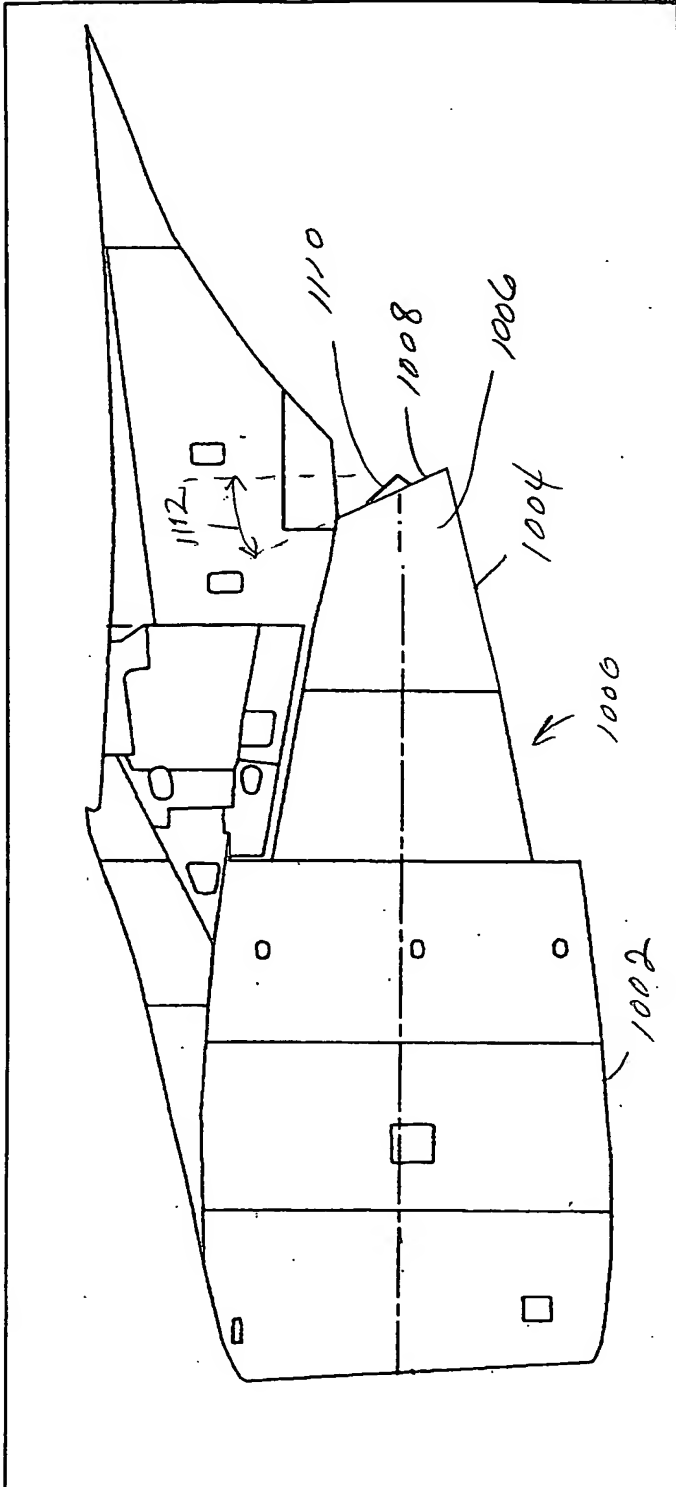
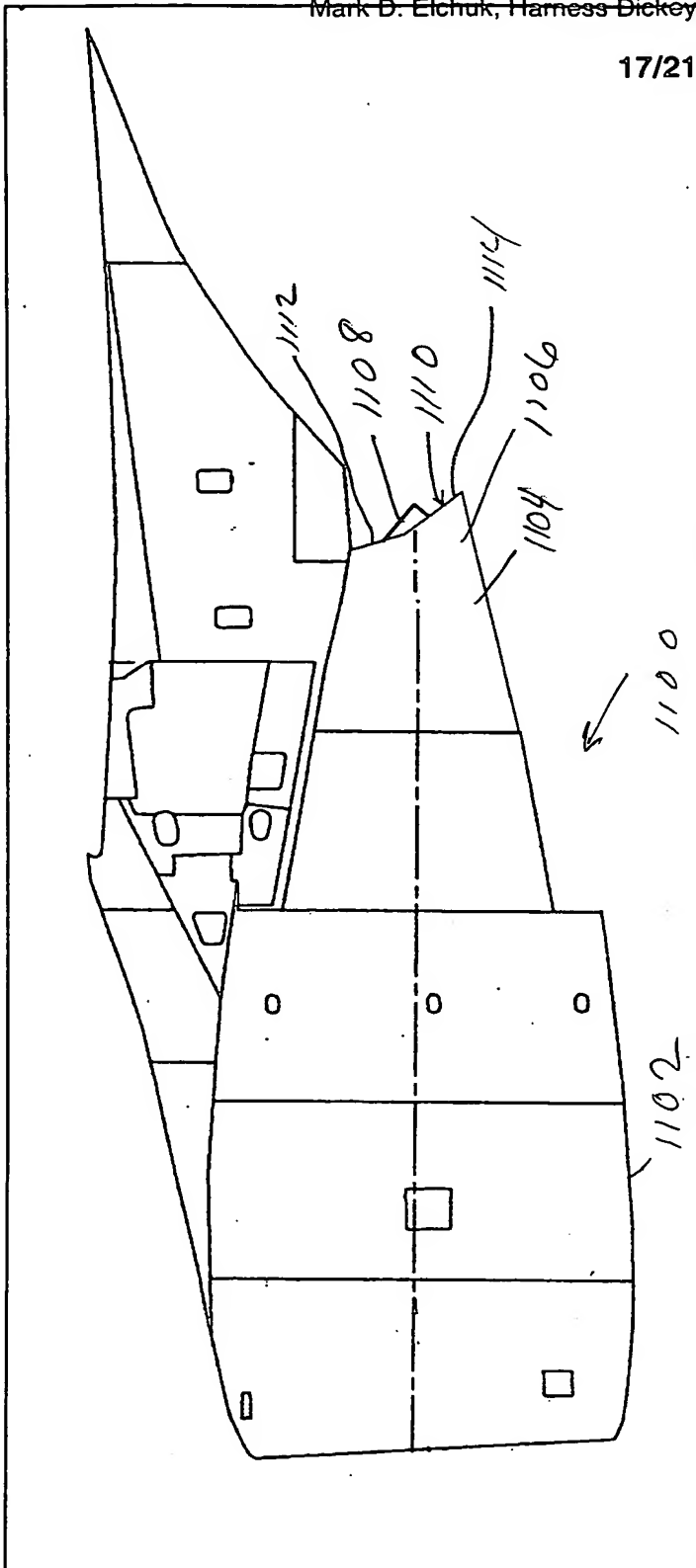


Fig 22

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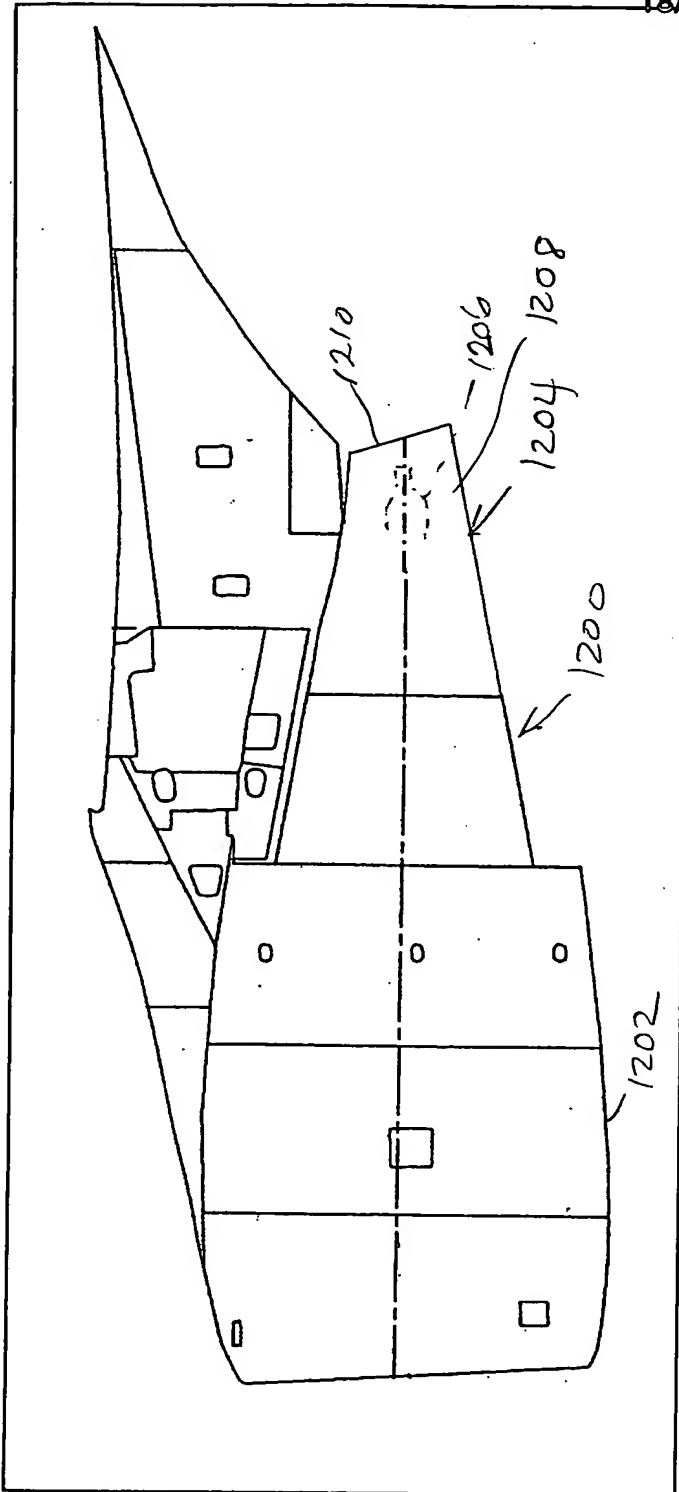


Fig 24

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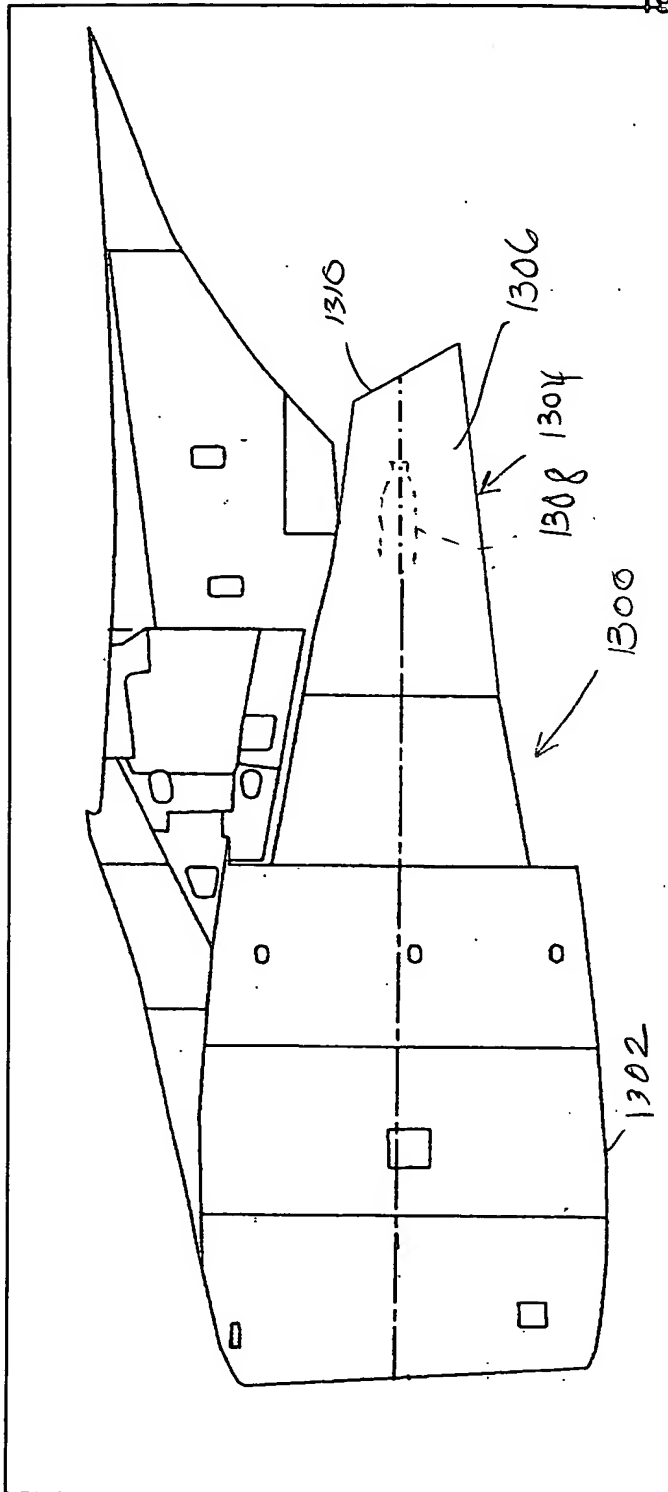


Fig. 25

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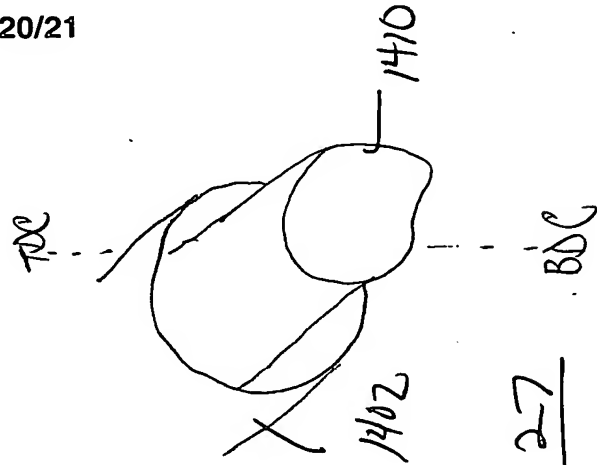
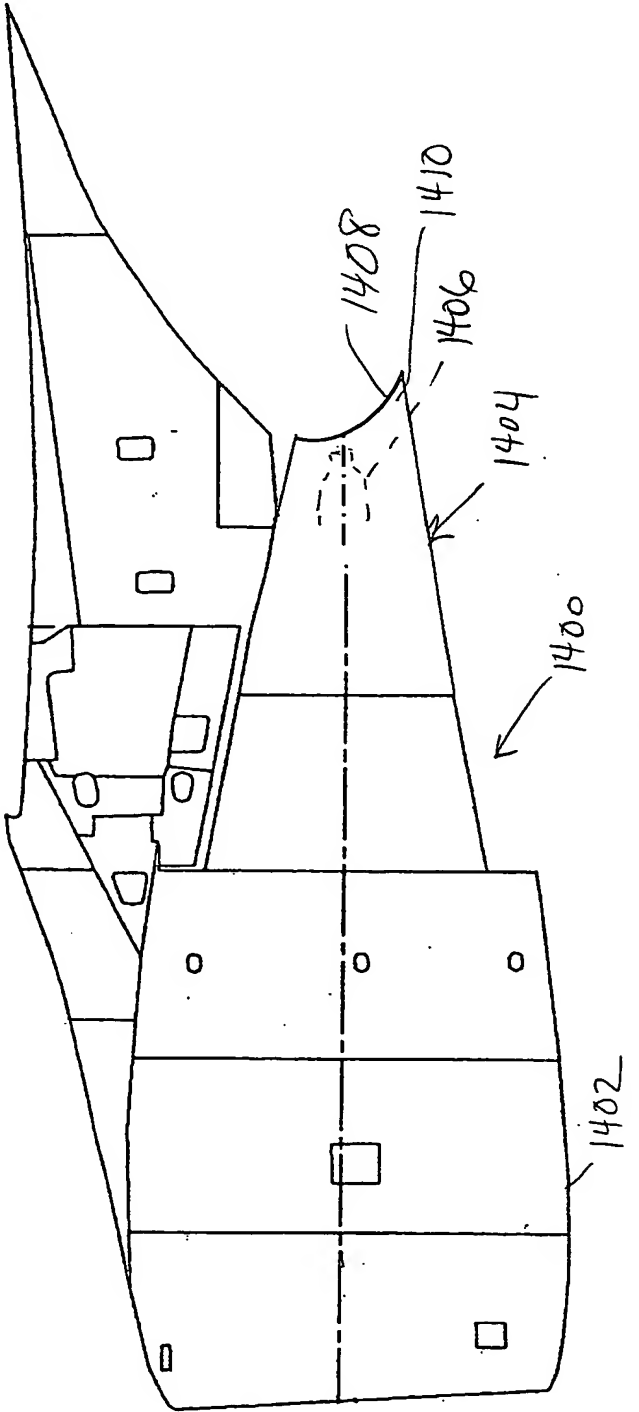


FIG 26

FIG 27

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